I feel more comfortable when the “diagnosis” precedes the “prescription.”

Time and again, we have been part of or worked with IT organizations that, in their desire to put an architecture in place, gloss over or entirely skip the vital steps that tie the architecture to the business. This “putting the cart before the horse” often results in missed or incorrect IT targets. So do not give in to those urges to select the new platform before understanding the current state of the business. This chapter provides some approaches for understanding how the enterprise is operating today.
Using Assessment Indicators

We begin by applying Assessment Indicators—factors used to analyze the business current state data collected in Chapter 2. Much like a thermometer, they provide a way to gauge the health or temperature of the business and to identify key symptoms or problems.

Here are guidelines for analyzing the business current state using assessment indicators. Review the data you collected in Chapter 2 and respond to the following key indicators to analyze the data. Document your conclusions.

- **Stress Points/Risks**  Identify and list significant “stress points” or risks in the enterprise. These are longer-term major factors that may cause extreme change and require a proactive stance, e.g., significant decline, unexpected growth. What are the worries/possible downsides of the current business plan?

- **Strengths and Weaknesses**  Analyze and list the strengths and weaknesses of the enterprise, e.g., employee loyalty, low turnover. These are usually characteristics for which the organization is known or recognized.

- **Challenges**  Extract the major challenges the enterprise faces. A challenge is a shorter-term situation the organization is trying to accommodate (often reactively), e.g., competition from e-tailors. You can usually recognize a challenge by the fact that several different groups are working to address it.

- **Environmental Factors**  List the major external environmental factors that impact the enterprise. These are forces outside of the control of the enterprise that require response, e.g., new legislation, deregulation.

- **Growth/Cost Containment Opportunities**  Extract potential growth and cost containment opportunities available to the enterprise. These represent desired positive outcomes, e.g., “Combining book and CD offers with free gifts could enhance revenue.” You can sometimes recognize a potential growth/cost savings opportunity by the fact that a new “buzzword” has cropped up, and everyone wants to be associated with it.
For example, when we applied Assessment Indicators to the current state description of CDCo, here is some of what we found.

- **Stress Point/Risk**  Revenue growth is beginning to erode due to increased competition from online music retailers.
- **Weaknesses**  Customer needs and characteristics are changing. Bargain-oriented, e-savvy customers want to make unique combinations of purchases and payments via their channel of choice and receive rewards. CDCo has no on-line/automatic bill payment capability, nor the ability to package custom offers of books and music with purchasing incentives.
- **Challenges**  Problems with the accuracy and speed of delivery of products by the new outsource vendor for inventory/shipping is causing customer complaints. Also, Customer Service can’t keep up with customer complaints.
- **Environmental Factor**  The outcome of legislation regulating the downloading of free music is unclear.
- **Growth/cost containment opportunity**  Service offerings can expand through the acquisition of Bookseller. Also, valuable customer information is available through club membership applications. Additionally, there are two separate IT groups, plus a CDCo Web team, each providing redundant infrastructure and using incompatible tools, development life cycle methodologies and data. Finally, the company wants to increase the growth rate and revenue from music sales and maintain the growth rate in publications.

For Bookseller we also identified several indicators.

- **Stress Points/Risks**  Key customer information is beginning to become available through the Bookseller online club and some customer data is not automated or not easily accessible. In fact, it is very difficult to identify who the customers are. Also, some sales results information is automated, but there are separate reports from Web site and retail stores, so the answer to “Are we making a profit?” is not readily apparent or reliable.
- **Weakness**  Employee loyalty is extremely high, but employees rely heavily on relationships versus processes.
- **Challenge**  The current processes and systems are frantically trying to keep up with business changes and increased Web sales volume. Many loyal employees are devising individual means to
maintain customer satisfaction. It’s difficult to tell what solutions are working.

- **Growth/cost containment opportunity** The web site is very popular and web sales are increasing. Also, as a result of reliance on people, relationships and manual intervention, overhead expenses seem to be higher than necessary.

## Environmental Scan

Another way to approach analyzing the current state is to perform an **environmental scan**. An environmental scan—the review of industry-specific research, trade associations, conferences, and publications to detect trends that affect your organization—can provide good information for assessing how the current state of your organization stacks up against your industry or competitors. A scan may highlight a problem in the current state that might have gone otherwise undetected.

For CDCo, an environmental scan surfaced changes in potential customer behavior that could impact the company. Here is an excerpt of the scan:

### By the numbers

How Americans are using household communications and computing technology now available to them:

- 45 percent of all Americans use cellular or wireless phones
- 43 percent use computers
- 37 percent use email
- 31 percent use the Internet for more than just email
- 28 percent use fax machines
- 12 percent bank online
- 11 percent shop online
- 23 percent use none of the above

(From *The Courier News*, May 8, 2000, paraphrasing a survey conducted by *Wired* magazine)

Nearly half of U.S. Internet users have purchased a product or service online. The most popular item purchased is books—42 percent have bought them online—compared to 38 percent for music purchases and 29 percent for software.

(Source: ACNielsen, *EAI Journal*, June 6, 2000)
Suggested Exercise

At this point, you may want to stop and use one or more of the approaches we have just described to analyze the current state information you collected about your enterprise.

Using Process Flows

Before we leave the current business state, we have one more suggestion. We brought up process flows at the end of Chapter 2. If you have the resources or existing documents, you might also construct a current business flow, containing major processes, sequences, and critical information. We bring up process flows here because of the following.

- A good way to collect information and pin-point problems during an interview is to:
  - Ask questions about how/if major processes are connected/disconnected, and
  - Capture responses in a flow diagram.
- Most serious business problems are the result of broken processes.
- A process flow can help eliminate the capture of “noise” (relatively unimportant areas of focus for the architect).

We advocate the addition of this third approach to analyzing the business current state because it will help in the translation of business framework outputs to architecture outputs. This is especially true when you can take advantage of interviewees to review your drafts or to provide commentary on existing flow documents (e.g., “This is a bottleneck!”). Figure 3–1 is an example of the kind of simple business process flow we construct, and we will discuss more about business flows in coming chapters.

Next we will look at some techniques for how to collect the data about the target state of the business.
Figure 3-1  Part of CDCo current state business flow.